

Figure 2

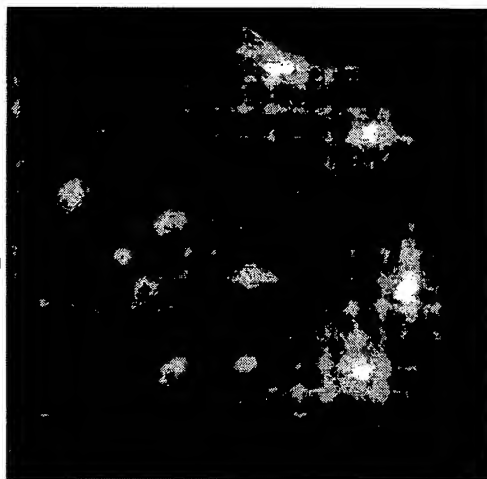


Figure 4

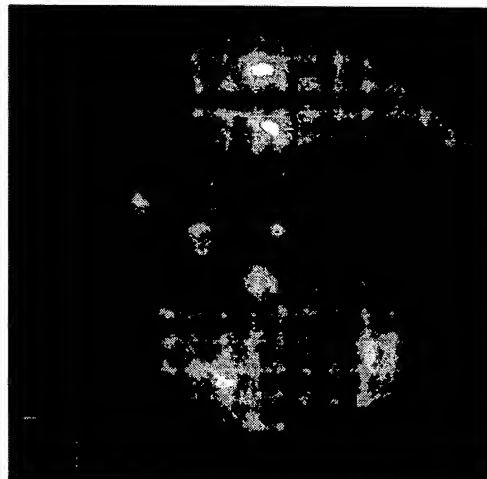
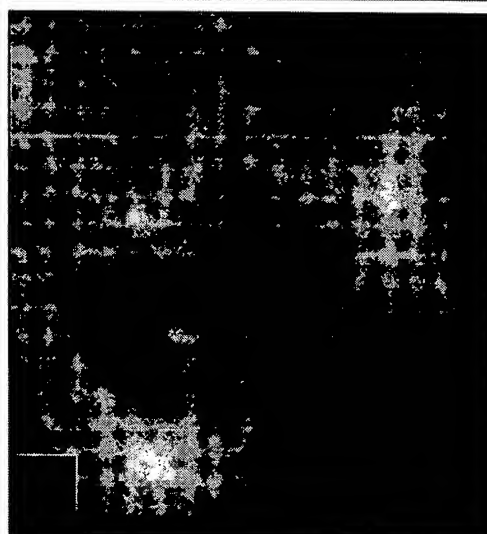


Figure 1



Figure 3



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FIG 5

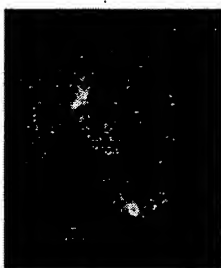


FIG 6



FIG 7



FIG 8

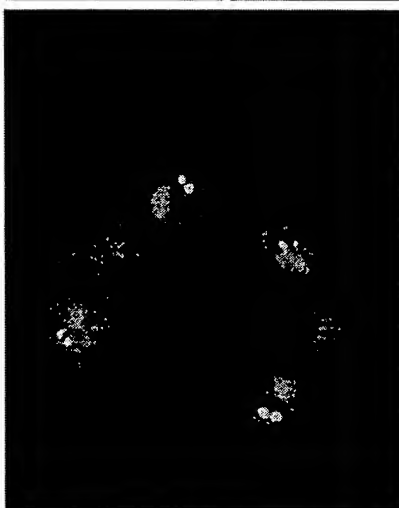


FIG 9



FIG 10



FIG 11



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Figure 13

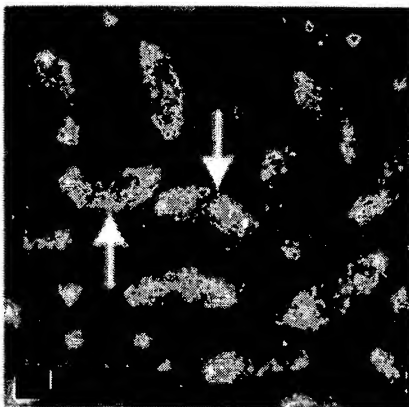


Figure 15

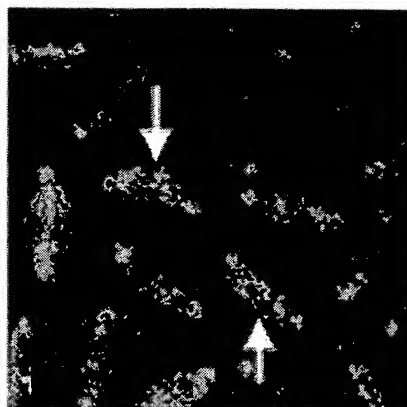


Figure 12

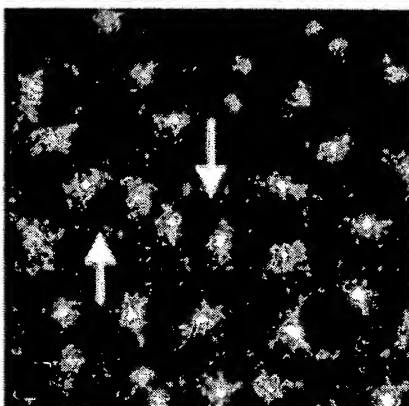
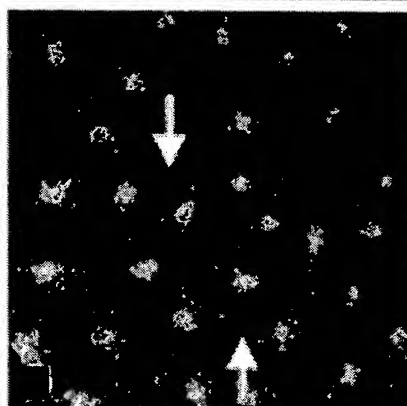


Figure 14



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Figure 16

SEQ ID NO:1 KIF18A cDNA
 GenBank Accession No. AL136819

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1 atgtctgtca ctgaggaaga cctgtgccac catatgaaag tagtagttcg tgtacgtccg
61 gaaaacacta aagaaaaagc agctggattt cataaagtgg ttcattgtgt ggataaacat
121 atcctagttt ttgatcccaa acaagaagaa gtcagttttt tccatggaaa gaaaactaca
181 aatcaaaatg ttataaagaa acaaaataag gatcttaa attgatttga tgctgtttt
241 gatgaacgt caactcagtc agaagtttt gaacacacta ctaagccaat tcttcgtagt
301 ttttgaatg gatataattg cacagtactt gcctatgggt ccaactgggc tgggaagacc
361 cacactatgc taggatcagc tgatgaacct ggagtgtatg atctaacaat gttacacctt
421 tacaatgca tggatgagat taaagaagag aaaatatgta gtactgcagt ttcatactg
481 gaggtatata atgaacagat tctgtatctc ttagttaaatt cagggccact tgctgtccgg
541 gaagataccc aaaaaggggt ggtcgttcat ggacttactt tacaccagcc caaatcctca
601 gaagaaattt tacatttatt ggataatgga aacaaaaaca ggacacaaca tcccactgat
661 atgaatgcca catcttctcg ttctcatgct gtttccaaa ttacttgcg acaacaagac
721 aaaacagcaa gtatcaatca aaatgtccgt attgccaaga tgcactcat tgacctggca
781 ggatctgagc gagcaagtac ttccgggtct aaggggaccc gattttaga aggcacaaat
841 attaatagat cacttttagc tcttggaat gtcataatg ccttagcaga ttcaagaga
901 aagaatcagc atatccctta cagaaatagt aagcttactc gcttgtaaa ggattctctt
961 ggaggaaact gtcaaatat aatgatagct gctgttagtc ctctctctgt attctacgat
1021 gacacatata acactcttaa gtatgctaac cgggcaaagg acattaaatc ttctttgaag
1081 agcaatgttc ttaatgtcaa taatcatata actcaatag taaagatctg taatgagcag
1141 aaggcagaga ttttattgtt aaaagaaaaa ctaaaagcct atgaagaaca gaaagccttc
1201 actaatgaaa atgaccaagc aaagttaatg atttcaaacc ctgaggaaaa agaaatcgaa
1261 aggtttcaag aaatcctgaa ctgcttgctc cagaatcgag aagaaattag acaagaatat
1321 ctgaagtgg aaatgttact taaagaaaaa gaacttaa atctctacca acaacagtgc
1381 cataaacaaa tagaaatgat gtgttctgaa gacaaagtag aaaaggccac tggaaaacga
1441 gatcatagac ttgcaatgtt gaaaactcgt cgctcctacc tggagaaaag gagggaggag
1501 gaattgaagc aatttgatga gaactaat ttggtccatc gtgtcgaaaa agaatggga
1561 ctcttaagtc aaaacggta tattccaaag gaactcaaga aagatcttca ttgtcacat
1621 ttgcacctcc agaacaaga ttgaaagca caaattagac atatgatgga tctagcttgt
1681 ctccaggaac agcaacacag gcagactgaa gcagtattga atgcttact tccaacccta
1741 agaaaacaat attgcacatt aaaagaagcc ggctgtcaa atgctgcttt tgaatctgac
1801 ttcaagaga tcgaacattt gtagagagg aaaaagtgg tagtttgggc tgaccaaact
1861 gccgaacaac caaagcaaaa cgatctacca gggatttctg ttcttatgac ctttccacaa
1921 cttggaccag ttacgcctat tcttgttg ctcatttcag gtggaactaa tctggttaag
1981 attcctacag aaaaagaac tcggagaaaa ctatgccat ctcccttgaa aggacagcat
2041 actctaaagt ctccaccatc tcaaagtgtg cagctcaatg attctcttag caaagaactt
2101 cagcctattg tatatacacc agaagactgt agaaaagctt ttcaaatcc gtctacagta
2161 acctaatga aacctatc atttactaca agtttcagg ctatcagctc aaacataaac
2221 agtgataatt gtctgaaat gttgtgtgaa gtagctatcc ctcataatag aagaaaagaa
2281 tgtggacagg aggacttga ctctacattt actatatgtg aagacatcaa gagctcgaag
2341 tgtaaattac ccgaacaaga atcactacca aatgataaca aagacatttt acaacggctt
2401 gatccttctt cattctcaac taagcattct atgcctgtac caagcatggt gccatcctac
  
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2461 atggcaatga ctactgctgc caaaaggaaa cggaattaa caagttctac atcaaacagt
2521 tcgttaactg cagacgtaaa ttctggattt gccaaacgtg ttcgacaaga taattcaagt
2581 gagaagcact tacaagaaaa caaaccaaca atggaacata aaagaaacat ctgtaaaata
2641 aatccaagca tggtagaaa atttgggaaga aatatitcaa aaggaaatct aagataa

Figure 17

SEQ ID NO:2 Amino acid sequence of KIF18A

GenBank Accession No. AL136819

MSVTEEDLCHHMKVVVRVRPENTKEKAAGFHKVVHVVDKHILVFDPKQEEVSF
FHGKKTTNQNVIKKQNKDLKFVFDVFDSTQSEVFEHTTKPILRSFLNGYNCT
VLAYGATGAGKTHTMLGSADEPGVMYLTMLHLYKCMDEIKEEKICSTAVSYLE
VYNEQIRDLLVNSGPLAVREDTQKGVVHGLTLHQPKSSEEILHLLDNGNKNRT
QHPTDMNATSSRSHAVFQIYLRQQDKTASINQNVRIAKMSLIDLAGSERASTSGA
KGTRFVEGTNINRSLLALGNVINALADSKRKNQHYPYRNSKLTRLLKDSLGGNCQ
TIMIAAVSPSSVFYDDTYNTLKYANRAKDIKSSLKSNVLNVNNHITQYVKICNEQ
KAEILLKEKLKAYEEQKAFTNENDQAKLMISNPQEKEIERFQEILNCLFQNREEI
RQEYLLKLEMLLKENELKSFYQQQCHKQIEMMCSEDKVEKATGKRDHRLAMLKT
RRSYLEKRREEELKQFDENTNWLHRVEKEMGLLSQNGHIPKELKKDLHCHHLHL
QNKDLKAQIRHMDLACLQEQHRQTEAVLNALLPTLRKQYCTLKEAGLSNAA
FESDFKEIEHLVERKKVVVWADQTAEQPKQNDLPGISVLMTFPQLGPVQPIPCS
SSGGTNLVKIPTEKRTRRKLMPSPKLGQHTLKSPPSQSVQLNDSLSKELQPIVYTP
EDCRKAFQNPSTVTLMKPSSFTTSFQAISNINSDNCLKMLCEVAIPHNRKKECGQ
EDLDSTFTICEDIKSSKCKLPEQESLPNDNKDILQRDPSSFSTKHSMVPVPSMVPSY
MAMTTAAKRKRKLTSSTSNSSLTADVNSGFAKRVQRQDNSSEKHLQENKPTMEH
KRNICKINPSMVRKFGRNISKGNLR

Figure 18

SEQ ID NO:3 Amino acid sequence of KLP67A
GenBank Accession No. NM_079268

MPSEQHTNIKVAVRVRPYNVRELEQKQRSIIKVMDRSALLFDPDEEDDEFFFQGA
KQPYRDITKRMNKKLTMEFDRVFDIDNSNQDLFEECTAPLVDAVLNGYNCSVFV
YGATGAGKTFTMLGSEAHPLTYLTMQDLFDKIQAQSDVRKFDVGVSYLEVYN
EHVMNLLTKSGPLKLREDNNGVVVSGLCCLTPIYSAEELLRLMLGNSHRTQHPT
DANAESSRSHAFQVHIRITERKTDTKRTVKLSMIDLAGSERAASTKGIGVRFKEG
ASINKSLLALGNCINKLADGLKHIPYRDSNLTRILKDSLGGNCRTLMVANVSMSS
LTYEDTYNTLKYASRAKKIRTTLKQNVLKSKMPTEFYVKKIDEVVAENERLKER
NKALEAKATQLERAGNSGFDPELKTWYSKIDAVYAAARQLQEHVLGMRKIK
NINYRQTLKKELEEFRLKMCVDQRCQEDFRRFANYMSTLTSQMEKYKEELPS
WLSKMEIAYQDLESLKREVNKSKAYQILIVYVKYKDLELQLTKQNIFNNHVNAI
NQELVENLDLMRKSFRACEVLNQTYDRLEDGQKLTPEIEAVFERLLRKMRFAD
SEANTKMAEMNPLAVPVALRSSAQEEEEPTCSLTASAKKRQRQAAQSDDDLHLS
MEDFDSQDTESDSEELHRTFKRPRNLNETQVLGPCSSSSSSSTSSSSSARKALTAT
VTKPRTVQQRLVSDLISDQNVRRGGNEKIKKALLKSNHFTAQGLQRTLAAASLAK
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K

Figure 19

SEQ ID NO:4 cDNA of KLP67A
GenBank Accession No. NM_079268

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61 cgtgaattgg agcaaaaaca gcggagtatt atcaaggta tgatcgttc ggcactgctg
121 ttgatcccg acgaggagga cgtagagttc ttcttcagg gcgccaagca accgtaccgc
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241 gacaattcca accaggatct gtgcaggag tgcacggcgc cgctggtcga cgcggtgtta
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361 atgtgggca gcgaggctca tccgggtctg acctatctta ccatgcaaga tctcttcgat
421 aagatccaag cgcagagcga cgtgcgcaag ttgatgtgg gggtatccta tctagagggtg
481 tacaacgaac atgtgatgaa tctgctaact aaatcgggcc ctttaaaact tcgcgaggac
541 aacaatggcg tgggtgtcag tggctttgt ctacgcccc tctacagtgc cgaggagctg
601 ctaagaatgc tgatgctggg caactctcat cgcactcagc accccacaga tgccaatgca
661 gagagtcca ggacacatgc catcttcag gtgcacatta ggatcacgga gcgcaagacc
721 gacacaaaa gaacgggtcaa actatccatg atcgatctgg cgggcagtga gagggcggcc
781 agtacgaaag gcattggagt gcgattcaag gaaggcgcca gcatcaacaa aagtctctta
841 gctttgggaa attgcataaa caagctagcc gacggcttaa agcacatccc gtaccgcgac
901 tcgaacctga cagcatcct gaaggactcg ttggcggaat attgtgcac attgatggtg
961 gccaatgtct cgtagagctc actgacctat gaagatacct acaacacct taagtacgt
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1201 gatccgctgg agcttaagac gtgtacagc aagatagacg ctgtatatgc ggccgcccgg
1261 cagcttcagg agcacgtct tggatgcgt agcaagatca agaactcaa ctaccggcg
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1441 tacaaggagg agttgcccg ctggctgagt aaaatggaga ttgctacca ggatctagaa
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1681 gaagtgtca accagacgta cgtcgcctc gaggatggtc aaaagctgac gccggaaatt
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1801 aaaatggccg agatgaatcc gttggcggtg cctgtggctc tgcgcagcag cgcccaggag
1861 gaagaagagc ccacatgcag cctcacggcc agcgccaaaa agcgacaaag gcaagcggct
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2161 atatccgatc agaattgtcg cgggtggcaat gaaaagatca agaaggctct actcaagtcg
2221 aatcacitta cggcgcaagg acttcagaga acgttggcgg ctgcttctct ggccaaggaa
2281 aacgtaaaat acaacgcaa ctatgtgcgc aagagtcac gagcgctaag ggccaaagcc
2341 cttgcaggca cctcgacgct tgcgagaaaa ccgctgggat cggccagtaa ggagccgcct
2401 ttggtcaaat tcaatcgtgc tgcctgttc cgctgaaga agtag
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Figure 20

KLP61F dsRNA (SEQ ID NO:13)

gacgggcaca gggaagaccc acaccatggt gggcaacgag actgccgaac
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ttttgatga gctgcgcatg atggaggtgg agtacactat gcgcatttcc tacttggaac
tgtacaatga ggagctgtgc gatctactgt ccaccgatga caccaccaag atacgcattt
tcgatgacag caccaagaag ggatcgggtga ttatccaggg cctggaggag ataccagtgc
acagcaagga tgatgtgtac aagctgctgg agaagggaaa ggagcgtcgc aaaacagcca
ctacgtgat gaatgcacag tcctcacgct cccacactgt atttctata gttgtgcaca
tcaggagaaa tggcatcgaa ggagaggaca tgctgaaaat cggtaaactg aatctggtgg
atctggcggg cagtgaaaat gttccaagg ctgggaatga aaaggga

Figure 21

KLP67A dsRNA (SEQ ID NO:14)

gtacggc cgtataatgt ccgtgaattg gagcaaaaac agcggagtat
tatcaagggtc atggatcgtt cggcactgct gttcgatccc gacgaggagg acgatgagtt
cttctttcag ggcgccaagc aaccgtaccg cgacatcacc aagcggatga acaaaaagtt
gaccatggaa ttcgacaggg ttttcgatat agacaattcc aaccaggatc tgttcgagga
gtgcacggcg ccgctggtcg acgcggtgtt aaatggatac aactgctcgg tatttgata
tggagccact ggcgccggaa aaacattcac aatgctgggc agcgaggctc atccgggtct
gacctatctt accatgcaag atctcttcga taagatcaa gcgcagagcg acgtgcgcaa
gttcgatgtg ggggtatcct atctagaggt gtacaacgaa catgtgatga atctgctaac
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